CULTURAL RESOURCES

Testimony of Roger Mason

INTRODUCTION

The cultural resources section identifies potential impacts of the proposed East Altamont Energy Center regarding cultural resources, which are defined under state and federal law in the Laws Ordinances Regulations and Standards (LORS) section of this staff assessment. The primary concern in cultural resources analysis for this project is to ensure that all potential impacts are identified and that conditions are set forth that ensure no significant adverse impacts will occur under the National Environmental Policy Act and that impacts are mitigated below a level of significance under the California Environmental Quality Act.

Staff provides a cultural overview of the project, as well as a California Environmental Quality Act (CEQA) criteria-based analysis and a National Historic Preservation Act analysis that assesses potential project related impacts. If cultural resources are identified, staff determines whether there may be a project related impact to identified resources and if the resource is eligible for the California Register of Historic Resources (CRHR) or the National Register of Historic Places (NRHP). If eligible, staff recommends mitigation that that will reduce any potential impacts to the cultural resource to a less than significant level.

There is always a potential that a project may impact a previously unidentified resource or impact an identified historical resource in an unanticipated manner. Staff therefore recommends procedures in the conditions of certification that mitigate these potential impacts.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The following laws, ordinances, regulations, standards, and policies apply to the protection of cultural resources in California. Projects licensed by the Energy Commission are reviewed to ensure compliance with these laws.

FEDERAL

National Environmental Policy Act (NEPA): Title 42, United States Code, section 4321 et seq., requires federal agencies to consider potential environmental impacts of projects with federal involvement and to consider appropriate mitigation measures.

Title 36, Code of Federal Regulations, section 61, Federal Guidelines for Historic Preservation Projects: The U. S. Secretary of the Interior has published a set of “Standards and Guidelines for Archaeology and Historic Preservation.” These are considered to be the appropriate professional methods and techniques for the preservation of archaeological and historic properties. The California State Historic Preservation Office refers to these standards in its requirements for selection of

qualified personnel and in the mitigation of potential impacts to cultural resources on public lands in California.

National Historic Preservation Act of 1966, as amended (Title16, United States Code, section 470). This act expresses the general policy of the federal government that supports and encourages the preservation of prehistoric and historic resources for present and future generations. It established the National Register of Historic Places, established the President's Advisory Council on Historic Preservation, established procedures for actions taken by federal agencies that may affect historic resources, and established a fund for preservation. Pertinent to this project, section 106 of this act requires federal agencies to take into account the effects of their undertakings on historic properties through consultations beginning at the early stages of project planning.

Title 36, Code of Federal Regulations, Part 800. These procedures of the Advisory Council on Historic Preservation, most commonly referred to as the section 106 process, established a process to ensure that federal agencies take into account the impacts of their undertakings on significant cultural resources. An agency is strongly encouraged to consult with various parties, including the State, private parties, and Indian Tribes as they determine the presence or absence of cultural resources, the eligibility of resources for nomination to the National Register of Historic Places (NRHP), and the effect the federal action may have on those resources. Very similar criteria and procedures are used by the State of California in identifying cultural resources eligible for listing in the California Register of Historical Resources (CRHR).

Executive Order 11593, "Protection and Enhancement of the Cultural Environment," May 13, 1971 (36 Federal Register 8921), orders the protection and enhancement of the cultural environment through providing leadership, establishing state offices of historic preservation, and developing criteria for assessing resource values.

American Indian Religious Freedom Act; Title 42, United States Code, section 1996 protects Native American religious practices, ethnic heritage sites, and land uses.

Native American Graves Protection and Repatriation Act of 1990; Title 25, United States Code, section 3001, et seq. This act provides for the repatriation of certain items from the federal government and certain museums to the native groups to which they once belonged. However, the provisions for repatriation only apply to items found on federal lands or Indian lands. The act also defines "cultural items," "sacred objects," and "objects of cultural patrimony"; and it establishes a means for determining ownership of these items.

National Environmental Policy Act of 1969 (NEPA; Title 42, United States Code, sections 4321-4347). This act requires federal agencies to consider the impacts of their projects on the human environment, whether the action is funded or permitted by the agency. Part of the human environment includes the cultural environment.

Title10, Code of Federal Regulations, Part 1021. These are the procedures of the Department of Energy that implement the provisions of the National Environmental Policy Act.

STATE

California Code of Regulations, Title 14, section 4852 defines the term "cultural resource" to include buildings, sites, structures, objects, and historic districts.

Public Resources Code, Section 5000 establishes a California Register of Historic Places; determines significance of and defines eligible resources. It identifies any unauthorized removal or destruction of historic resources on sites located on public land as a misdemeanor. It also prohibits obtaining or possessing Native American artifacts or human remains taken from a grave or cairn and establishes the penalty for possession of such artifacts with intent to sell or vandalize them as a felony. This section defines procedures for the notification of discovery of Native American artifacts or remains, and states that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.

The California Environmental Quality Act (CEQA) (Public Resources Code, section 21000 et seq.; Title 14, California Code of Regulations, section 15000 et seq.) requires analysis of potential environmental impacts of proposed projects and requires application of feasible mitigation measures.

Public Resources Code section 21083.2 states that the lead agency determines whether a project may have a significant effect on “unique” archaeological resources; if so, an EIR shall address these resources. If a potential for damage to unique archaeological resources can be demonstrated, the lead agency may require reasonable steps to preserve the resource in place. Otherwise, mitigation measures shall be required as prescribed in this section. The section discusses excavation as mitigation; limits the Applicant’s cost of mitigation; sets time frames for excavation; defines “unique and non-unique archaeological resources;” and provides for mitigation of unexpected resources.

Public Resources Code section 21084.1 indicates that a project may have a significant effect on the environment if it causes a substantial adverse change in the significance of a historic resource; the section further defines a “historic resource” and describes what constitutes a “significant” historic resource.

CEQA Guidelines, Title 14, California Code of Regulations, section 15126.4(b), prescribes the manner of maintenance, repair, stabilization, restoration, conservation, or reconstruction as mitigation of a project’s impact on a historical resource. It also discusses documentation as a mitigation measure; and discusses mitigation through avoidance of damaging effects on any historical resource of an archaeological nature, preferably by preservation in place, or by data recovery through excavation if avoidance or preservation in place is not feasible. Data recovery must be conducted in accordance with an adopted data recovery plan.

CEQA Guidelines, section 15064.5 defines the term “historical resources,” explains when a project may have a significant effect on historic resources, describes CEQA’s applicability to archaeological sites, and specifies the relationship between “historical resources” and “unique archaeological resources.”

Penal Code, section 622 1/2 states that anyone who willfully damages an object or thing of archaeological or historic interest is guilty of a misdemeanor.

California Health and Safety Code, section 7050.5 states that if human remains are discovered during construction, the project owner is required to contact the county coroner.

LOCAL

San Joaquin County

The San Joaquin County General Plan includes a goal for protection of architectural, historical, archaeological, and cultural resources (San Joaquin County 1992). The General Plan contains policies for the identification, protection, and preservation of significant archaeological and historical resources, reuse of architecturally or historically significant buildings, and promotion of public awareness and support for historic preservation. These policies are implemented through county museum programs for public education, historic inventories, and promotion of National Register and California Register nominations of historic structures. The Planning Department is required to develop historic preservation regulations.

Contra Costa County

The Contra Costa General Plan contains a goal to identify and preserve important archaeological and historic resources (Contra Costa County 1996). There are policies for preservation and protection of buildings, structures, and areas with historic or archaeological significance, use of compatible design for development of areas adjacent to areas of historic significance, and balancing multiple land use with protection of archaeological resources in the Southeast County Area. The Planning Agency will develop an archaeological sensitivity map and procedures for protection of archaeological resources encountered during construction. Use of the State Historic Building Code is encouraged and property owners are encouraged to nominate their historic properties for the NRHP and the CRHR and to make use of tax incentives.

East Alameda County

The East Alameda County General Plan (Alameda County 1994) contains a goal to protect cultural resources from development. Policies include preservation and identification of significant archaeological and historical resources and planning development to avoid cultural resources. Procedures for protection of archaeological sites include requiring records searches and surveys and halting construction if archaeological sites are found. Renovation or relocation are considered appropriate measures for preservation of historic structures. Proposed demolition of historic structures must be reviewed by qualified professionals.

ENVIRONMENTAL SETTING

The power plant property is located in the northeast corner of Alameda County and project linears (routes for gas, water, and reclaimed water pipelines) extend into Contra Costa and San Joaquin Counties. The nearest cities are Livermore, about 12 miles to the southwest, and Tracy, about eight miles to the southeast. The project area is located on the west side of the San Joaquin Valley about 20 miles southeast of the

confluence of the San Joaquin and Sacramento Rivers (the Delta). The Old River, a tributary of the San Joaquin River, flows northwestward along the western margin of the San Joaquin Valley about 1.5 miles east of the project area. Hills of the Diablo Range lie to the west of the project area. The project area was probably originally covered by grassland with marsh and wetlands along the Old River to the east. The extensive wetlands of the San Joaquin River delta were located nearby to the north. The wetlands areas to the east and north were known historically as the "Great Tule Swamp" (EAEC 2001s, p. 6). Currently, land use is agricultural and little, if any, native vegetation remains. The climate is mild with warm, dry summers characterized by an almost complete absence of rain, and mild winters with relatively light rains. In the valley the temperature averages below 32 degrees less than fifteen days per year. The average period between the last frost of spring and the first frost of fall is more than 7.5 months (Simonds 1994). The average annual precipitation is 12 inches.

The power plant property is just south of the Clifton Court Forebay, the reservoir at the beginning of the California Aqueduct. The California Aqueduct is about 2 miles west of the power plant property and the Delta Mendota Canal is directly west of the power plant property. A linear route crosses the Delta Mendota Canal. Mountain House Creek drains a portion of the Diablo Range and flows eastward across the southern part of the project area to the Old River. The project area is underlain by alluvium and the elevation at the site of the proposed power plant is about 40 feet. The project area is rural and land uses are primarily agricultural.

Refer to the **PROJECT DESCRIPTION** section of this Final Staff Assessment for additional information and maps of the project development region and the project area.

PREHISTORIC SETTING

The prehistory of the northern San Joaquin Valley is not well known. Few sites have been investigated and most of these date to the Late Prehistoric Period. Although many sites from earlier periods are likely buried under later Holocene alluvium (of considerable depth in the Central Valley), a few sites from the Early Period (Fluted Point Tradition) and Middle Period (Windmiller Pattern) have been found in Central Valley locations (Moratto 1984). The Windmiller Pattern (4,750 to 2,000 yrs. Before Present [BP] south of the Delta area) is characterized by the use of large dart points for hunting, a trident spear and hooks for fishing, mortars and pestles (indicating acorn processing), ground and polished charmstones, baked clay artifacts, and marine shell beads and ornaments (Moratto 1984, pp.201-203). Terrestrial animals and fish appear to have been more important sources of food compared to seeds and acorns.

After 2,000 BP the Late Period in the Central Valley is represented by the Augustine Pattern. The archaeological record indicates intensive use of acorns, fishing, hunting (using the bow and arrow), large, dense populations living in villages throughout most of the year, highly developed exchange systems, social stratification (indicated by variability in grave goods), and elaborate ceremonialism (Moratto 1984, p. 211). The later archaeological sites appear to reflect the same settlement and subsistence systems practiced by the Northern Valley Yokuts who occupied the area when the Spanish arrived in California. Most residential sites are located on low mounds near rivers.

ETHNOGRAPHIC BACKGROUND

The project area is in territory occupied by the Native American group known to the Spanish and twentieth century ethnographers as the Northern Valley Yokuts. The northern San Joaquin Valley was originally covered by sloughs and marshes along the San Joaquin River. The Northern Valley Yokuts obtained fish and waterfowl from the river and marshes. Grass and tule seeds were important plant foods. Acorns from the valley oaks were also collected. The Yokuts lived in permanent villages on mounds along the river, although gathering parties left the villages seasonally to collect seeds and acorns. They were organized in territorial tribelets of up to 300 people (Wallace 1978). The closest Yokuts village to the project area was probably the village known as Pescadero located on Union Island (east of the project area on the other side of Old River about a mile away from the end of the reclaimed water pipeline route). It was visited by the Spanish in 1810 (EAEC 2001s, p.11). Most native inhabitants in the vicinity of the project area were taken to Mission San Jose in the 1810s. Native populations were greatly reduced as a result of exposure to European diseases to which they had no immunity. After the missions were closed by the Mexican government in the 1830s, the few remaining Native Americans worked on cattle ranches in the area.

HISTORIC SETTING

Spanish missionaries began their exploration of California and development of the missions in 1769, starting in San Diego and ending with the missions in San Rafael and Sonoma, in 1823. Mission San Francisco and the San Francisco Presidio (military post) were established in 1776. The closest mission to the project area was Mission San Jose, founded in 1797 (Beck and Haase 1974, p.19). After Mexico became independent from Spain, the missions were closed by the Mexican government in the early 1830s.

Former mission lands were granted to soldiers and other Mexican citizens for use as cattle ranches. The El Pescadero land grant was granted in 1843 to Antonio M. Pico and was located along the Old River east of the project area (EAEC 2001s, p.11). A small portion of the reclaimed water pipeline route is within the boundaries of the El Pescadero land grant, as surveyed by the General Land Office. Ranching continued during the American period that began when the Treaty of Guadalupe Hidalgo was signed between Mexico and the United States in 1848. The Gold Rush of 1849 brought large numbers of Anglo-Americans to the area, resulting in the rapid expansion of San Francisco which became the commercial entrepot for the region.

Other towns in the bay area, such as Oakland and San Jose, developed rapidly after the arrival of the transcontinental railroad in 1869. The bay area towns provided commercial, warehousing, financial, and manufacturing services for the agricultural and mining areas further east. Agricultural use of the Central Valley was promoted by completion of the Southern Pacific Railroad along the eastern side of the valley in 1876. Stockton, located east of the project area along the railroad, became a grain shipping center.

In the project area, agriculture and coal mining began in the 1860s. Grain and coal were shipped via the Old River to the bay area by riverboat from the town of Wicklund, also known as Mohr's Landing. Mr. Wicklund and Mr. Mohr were landowners in the area and Mohr operated a ferry crossing the Old River. The town of Wicklund was located on the southwest side of the Old River near the proposed terminus of the reclaimed water line route. During the 1860s, Wicklund had a hotel, blacksmith shop, warehouse, and coal bunkers (Baker et al. 1991).

Wicklund originated and thrived as a town on the Old River. Steamers transported coal and grain to San Francisco. Completion of the Central Pacific Railroad line from Stockton to Oakland through Tracy and Ellis in 1869/1870 and the decline of coal production caused some people to leave Wicklund and move to Ellis on the railroad to the south. The town of Wicklund continued to exist for another ten years until the Northern Railway built a rail line much closer to Wicklund, along the western side of the San Joaquin Valley from Martinez to Tracy, in 1878. In 1880 this line was leased to the Central Pacific Railroad for a period of five years (Commissioner of Railroads 1883, p.15). The line was later acquired by the Southern Pacific Railroad. At this time Wicklund was abandoned and the new town of Bethany was founded along the rail line on land owned by Mohr.

Other land in the project area was originally owned by Charles McLaughlin, a contractor for the railroad who received land from the railroad in return for his services (EAEC 2001s, p. 13). Mountain House was another nineteenth century settlement near the project area (EAEC 2001s, p.13). It was located at the intersection of Mountain House Road and Grant Line Road near Mountain House Creek about three miles south of the power plant property.

Large water conveyance systems that carry water southward from the Delta were built in the mid-twentieth century. The Delta Mendota Canal begins just north of the project area at the Old River and runs south through the project area on its way to the Mendota Pool near Fresno. Water is pumped uphill to an aqueduct at the Tracy Pumping Station in the project area near the intersection of Kelso Road and Mountain House Road. Electricity is supplied to the pumping station by the adjacent Tracy Substation and associated transmission lines operated by the Western Area Power Administration. The transmission lines originate at power plants near Lake Shasta (EAEC 2001e, p. 6). The Delta Mendota Canal and the associated pumping station and substation were built between 1946 and 1949 by the Morrison-Knudsen Company and the M. H. Hasler Construction Company under contract to the Bureau of Reclamation (Stene 1994). The California Aqueduct carries water to southern California. It is located just outside the project area to the west and was built in the 1960s (EAEC 2001e, p. 6).

RESOURCES INVENTORY

Literature and Records Search

Prior to preparation of the AFC, the applicant conducted a cultural resources literature search and reviewed site records and maps for the project area in Alameda and Contra Costa Counties at the Northwest Information Center of the California Historic Resources Information System (CHRIS) located at Sonoma State University in Rohnert Park. A

second records search was performed for the portion of the project area in San Joaquin County at the Central California Information Center located at California State University, Stanislaus in Turlock. The records searches included an area one mile in radius around the power plant site and the project linear routes.
Information from the CHRIS indicated that there have been 54 previous cultural resources investigations within one mile of the project area. However, only portions of the area to be impacted by the project and its associated linears are shown by the Information Centers' records as areas that were surveyed prior to the surveys performed for the East Altamont Energy Center. The power plant property, the water line route between Mountain House Road and Bruns Road, and the portion of the gas line route along Kelso Road were not previously surveyed.

Site records and maps obtained by the applicant from the Information Centers indicate that the only previously recorded prehistoric cultural resources in the project vicinity consist of two archaeological sites and two isolated artifacts. One of the archaeological sites (CA-ALA-456) consists of a rockshelter with four associated bedrock mortars. No midden or artifacts were observed. The site area was heavily impacted by construction of the California Aqueduct. The site is about one mile from the project area.

The other prehistoric archaeological site (P-39-000254) is located in San Joaquin County along Mountain House Creek in the vicinity of the reclaimed water line route. Little is known about this site. It was destroyed by land leveling for agriculture before it could be recorded by archaeologists. The only information available about the site is that two white chert spear points were collected from the surface of a beet field by a Mr. Barr. His artifact collection is at the Phoebe Hearst Museum of Anthropology at the University of California, Berkeley. Two isolated cores (P-39-000370 and P-39-000371) were recorded nearby. In addition, flakes and bone have been noted, but not recorded, in the same area along the creek. Although none of these prehistoric archaeological resources will be impacted by construction of the reclaimed water line, the presence of several resources along Mountain House Creek indicates that this area is sensitive for prehistoric archaeological resources. A geoarchaeological study completed by the applicant's consultant confirmed that there is a potential for buried prehistoric archaeological resources in the part of the project area where the reclaimed water line route crosses Mountain House Creek (Meyer 2002:8). The alluvial fan deposits in this area date to the early Holocene (the period after the end of the ice age when Native Americans likely first occupied the area) and a buried surface was observed in the bank of a canal that runs through this area. The presence of the buried surface indicates that a surface possibly used by Native Americans exists in the area and may be revealed by ground disturbance.

The records search results showed that cultural resources from the historic period have been recorded in the vicinity of the project area, but only in San Joaquin County near the route of the reclaimed water line. It is likely that similar historical resources exist in Alameda and Contra Costa Counties, but much less land has been surveyed in these counties in the project vicinity and it appears that the surveyors were only focusing on prehistoric resources. Four complexes of historic structures and two historic archaeological sites have been recorded within one half mile of the reclaimed water line route. The structure complexes consist of farmsteads with houses, barns, tankhouses, and other outbuildings. P-39-000366 appears to date from the 1880s and is located on

the other side of the railroad track from the reclaimed water line route along Byron-Bethany Road near its intersection with Kelso Road. P-39-000367 appears to date from the 1910s and is located about one half mile northeast of Byron-Bethany Road near Mountain House Creek. P-39-000368 appears to date from the 1920s and is located near Mountain House Creek southwest of Byron-Bethany Road. P-39-000368 appears to date from the 1910s and is located southwest of Byron-Bethany Road near its intersection with Henderson and Bethany Roads. The reclaimed water line route does not pass through any of these historic resources.

One of the two historic archaeological sites, P-39-000345, represents a former farmstead complex that is no longer standing. The site consists of a scatter of bottle glass and ceramic fragments. Historic maps indicate the farmstead was built sometime between 1914 and 1943 (Hall and Smith 1991). The northern boundary of the site is 5 to 10 meters from the south side of Bethany Road (the route of the reclaimed water line in this area). The other historic archaeological site (P-39-000343) is the town site of Wicklund, located about 75 meters west of the terminus of the reclaimed water line route. Material remains consist of a scatter of bottle glass and ceramic fragments (Baker et al. 1991). The reclaimed water line route does not pass through either of the recorded boundaries of these resources from the historic period, based on surface evidence, but comes within 5 to 10 meters of P-39-000345.

Although not recorded as an archaeological site, a historic map (Gilbert 1879) shows the location of the town of Bethany near the intersection of Byron-Bethany Road and Henderson and Bethany Roads on the southwest side of the railroad. The route of the reclaimed water line in Byron-Bethany Road and Bethany Road passes through or very near the town site.

There are several linear water conveyance features in the project area. The Westside Irrigation District's Main Drain (P-39-000470) begins at the intersection of Bethany and Wicklund Roads (adjacent to the route of the reclaimed water line) and runs southeast for 2.83 miles. It is about 15 feet deep and 35 feet wide and was built between 1926 and 1928, according to the record form. The water line route crosses the Delta Mendota Canal which was constructed in the late 1940s (Stene 1994). The Tracy Pumping Station and the Tracy Substation are part of the infrastructure of the Delta Mendota Canal and are located north of Kelso Road and west of Mountain House Road. These and other linear resources of historic age are discussed further in the Field Surveys section.

The applicant provided an inventory of historic properties within ½ mile of the proposed project and associated linear components (excluding the recycled water line). The applicant reviewed aerial and ground photographs of the project area and identified 114 houses, structures, and linear resources, such as power lines, roads, and canals. They estimated the date of construction for houses and determined the effective age (when the building was last remodeled) by the façade and appearance of the buildings. No historical research was performed. The inventory provided the location of buildings and structures in relation to roads (no addresses), the approximate age, and potential eligibility for listing as a historic resource (EAEC 2001u, p.2). They concluded that all structures and linear resources within ½ mile of the power plant site, the water line route, and the gas line route are less than 45 years old and are not eligible for the

CRHR nor the NRHP. This conflicts with the results of a field survey performed by a consultant to the Energy Commission (see next section).

Field Surveys

Archaeological surveys

The applicant performed an intensive pedestrian survey (archaeological) of the property proposed for the East Altamont Energy Center and the associated linear routes, including, the water line route, the reclaimed water line route, and a portion of the gas line route (EAEC 2002b, p. 24). The survey of the power plant property was performed by walking parallel 20 meter transects and an area 75 feet wide on each side of the centerline of the linear routes was surveyed by walking a sinuous or meandering route (EAEC 2002b, p.24-25). No archaeological resources were identified as a result of these surveys (EAEC 2002b, p. 25-27).

The reclaimed water line route does not pass through the area recorded as the town site of Wicklund (P-39-000343), based on surface evidence, but passes within 75 meters of this site. The proximity of the reclaimed water line route to the town site indicated some potential for impacts to subsurface deposits associated with the town site as a result of excavation for installation of the reclaimed water pipeline. Therefore, staff requested a subsurface test to determine whether subsurface deposits from the historic period were present in the route of the reclaimed water line. Five trenches 18 inches wide and seven feet deep were excavated with a backhoe in the reclaimed water line route. This depth extended below the proposed impacts from the pipeline which will be installed at a depth of three to four feet below surface. All of the sediments exposed in the trenches consisted of culturally sterile fill which likely resulted from excavating the adjacent Wicklund Canal and were deposited here to form a berm along the canal. No cultural material was encountered in any of the trenches (McClintock 2002).

Historical Surveys

Staff requested that the applicant also provide a survey of historic resources (structures and buildings from the historic period), conducted by an architectural historian or person with an appropriate historic background. The applicant asked that staff consider the quality of the information, not necessarily the title of the person producing it. Staff agreed to accept information, however produced, that adequately addressed the presence and significance of potential historic resources in the vicinity of the project. The applicant then conducted an historic resources survey and submitted it to the Energy Commission. However, the information provided did not meet requirements under law for either a CEQA or NEPA evaluation of historic properties.

Because staff needed a more thorough survey for its analysis, staff hired a qualified consultant to conduct another historic architectural resources field survey inventory and evaluation (PAR Environmental Services [PAR], 2002). The survey and inventory included structures and linear resources that had not been previously recorded and that were located within an approximately one mile radius of the power plant. This area included properties that could have their setting impacted by construction of the power plant. Photographs were taken and DPR 523A forms were completed for 28 properties. Historical research was performed for 18 of the properties that were evaluated and for

which a DPR 523B (Building, Structure, Object) or DPR 523 L (Linear Feature Record) form was also completed. The summary information about historical properties in this section is derived from the information on these forms.

The 28 inventoried properties are identified in Table 1 (PAR 2002). The following discussion is a brief summary of the inventoried resources identified in Table 1. Linear resources identified, include the Southern Pacific Railroad Grade (Resource No. 1 in Table 1) and Byron Bethany Road (Resource No. 2). Both were originally built in 1878. The reclaimed water line route is in the Byron Bethany Road right-of-way and the Southern Pacific Railroad Grade runs directly adjacent and parallel with Byron Bethany Road.

The Southern Pacific Railroad Grade is the rail line between Tracy and Martinez and was originally built as an alternate route to Oakland because the Central Pacific's line from Tracy to Oakland had to traverse Altamont Pass using a steep grade. The Tracy to Martinez route to Oakland was longer, but was fairly level. The Tracy to Martinez was acquired by the Central Pacific and then by the Southern Pacific. The Southern Pacific Railroad was acquired by the Union Pacific Railroad in the 1990s. The railroad through the project area was important to local farmers and allowed them to ship grain to market. The railroad stop in the project area was at the town of Bethany near the southern end of the reclaimed water line route.

Byron Bethany Road was originally built in 1878 as a dirt road paralleling the railroad and was used by the railroad for construction and maintenance. The road is currently a paved two lane county road. During the late nineteenth and early twentieth centuries the Southern Pacific Railroad Grade and the Byron Bethany Road were the two most important transportation routes in the area and connected the project area with the surrounding region. There is one other road in the project area that dates to the historic period. Mountain House Road (Resource No. 3) was originally built about 1874 to connect the community of Mountain House with the wider region. It was straightened and realigned in 1889. The road is now a paved two lane county road.

Table 1Cultural Resources Near East Altamont Energy Center Project

Resource Number.	Name/Address	Date of Construction	Not Evaluated	Appears Eligible	Appears Not Eligible
1	Southern Pacific Railroad Grade (segment)	1878			X
2	Byron Bethany Road	1878			X
3	Mountain House Road (segment)	circa 1874			X
4	Hurley-Tracy Transmission Line (segment)	1951			X
5	Tracy-Contra Costa-Ygnacio Transmission Line (segment)	circa 1946-1951			X
6	Tracy-Los Vaqueros Transmission Line (segment)	circa 1946-1951			X
7	PG&E Distribution Line	1909			X
8	West Side Irrigation District Complex, Wicklund Rd.	1917		X	
9	Byron Bethany Irrigation District Canal	1919, 1968			X

10	Mountain House School 3950 Mountain House Road	1923			X
11a	Tracy Pumping Station 16650 Kelso Rd.	1952		X	
11b	Tracy Switch Station 16800 Kelso Road	1952			X
12	Adobe Ranch Complex 17700W. Byron Rd.	1931			X
13	Patteson Ranch 17491 & 17590 Kelso Rd.	circa 1920, 1940s	X		
14	Ranch 16941 S. Kelso Rd.	circa 1940	X		
15	Livermore Yacht Club	1937-1970s	X		
16	Costa Ranch 5840 Lindeman Rd.	circa 1944	X		
17	Wing Ranch, Kelso Rd.	circa 1944			
18	Dexter Ranch 17499 Kelso Rd.	circa 1917			X
19	Holck Ranch 16606 Kelso Rd.	1948			X
20	Kuhn Ranch 4378 Mountain House Rd.	circa 1925			X
21	Schropp Farm Complex 3880 Mountain House Rd.	circa 1944, 1960s			X
22	PG&E Substation Byron Bethany Rd.	circa 1910	X		
23	Peterson Ranch 15991 Kelso Rd.	circa 1956	X		
24	Griffith Property 15616 Kelso Rd.	circa 1950	X		
25	Clark Ranch 15685 Kelso Rd.	circa 1942	X		
26	Jess Property 15547 Kelso Rd.	circa 1940s	X		
27	Delta Mendota Canal and Intake Channel (segment)	1946-1952		X	

Several electrical transmission lines cross the project area. The oldest is the PG&E Distribution Line (Resource No. 7) which runs along Byron Bethany Road. It was built in 1909 by the Stanislaus Electric Company which generated hydroelectric power at a powerhouse on the Stanislaus River in the Sierra Nevada foothills. The transmission line in the project area was a distribution line that carried power into the project area from the company's main transmission line from the Stanislaus River powerhouse through Tracy to Oakland. The transmission line is supported by wooden poles with wooden cross members. Insulation is provided by ceramic insulators. A substation (Resource No. 22) for the transmission line, built in 1910, is located along the transmission line northwest of the Delta Mendota Intake Channel. The transmission line and substation are now owned by PG&E.

The other transmission lines in the project area are part of the Central Valley Project, a large water conveyance project built by the Bureau of Reclamation in the late 1940s and completed by 1952. The Central Valley Project was designed to provide water for irrigation in the western San Joaquin Valley north of Fresno. The Central Valley Project made up to one million acres available for irrigation agriculture that were formerly dry

and was described as the “most ambitious public works project ever built” (Hattersley-Drayton 2000).

In the project area the Central Valley Project consists of the Delta Mendota Canal and Intake Channel (Resource No. 27), the Tracy Pumping Station (Resource No. 11a), the Tracy Switch Station (Resource No. 11b), the Hurley-Tracy Transmission Line (Resource No. 4), the Tracy-Contra Costa-Ygnacio Transmission Line (Resource No. 5), and the Tracy-Los Vaqueros Transmission Line (Resource No. 6).

Water is delivered from Shasta Dam via the Sacramento River to the Delta and Old River. An Intake Channel brings water from the Old River to the Tracy Pumping Station where water is lifted 197 feet to the beginning of the Delta Mendota Canal. The canal runs 116 miles to the Mendota Pool near Fresno. The massive pumps in the pumping station are powered by electricity from a hydroelectric powerhouse at Shasta Dam. The electricity is transmitted to the Tracy Switch Station by the Hurley-Tracy Transmission Line for use by the Tracy Pumping Station. Surplus power is transmitted from the switching station to customers by the Tracy-Contra Costa-Ygnacio Transmission Line and the Tracy-Los Vaqueros Transmission Line. The Intake Channel is trapezoidal in cross section and is concrete lined. It is 75 feet wide at the water line and has an average depth of 16 feet.

The Tracy Pumping Station consists of four structures. One of these is a large metal structure over the Intake Channel which houses the pump equipment. The other buildings consist of a two story concrete office building, a one story concrete office building, and a metal clad storage building. The Tracy Pumping Station was completed in 1952 and has not been modified. The Tracy Switch Station is adjacent to the pumping station and consists of 14 buildings and electrical transmission switching yards. The buildings are mostly one story metal clad structures, although the office has wood siding. The complex also has metal electrical switching equipment and transmission towers. The Tracy Switch Station was also completed in 1952, but many of the present buildings were added in the 1960s and 1990s. New transmission lines and switching equipment also have been added. The transmission lines are supported by standard design latticed steel towers set on concrete piers. The original transmission lines (the Hurley-Tracy Transmission Line, the Tracy-Contra Costa-Ygnacio Transmission Line, and the Tracy-Los Vaqueros Transmission Line) have a capacity of 230 kv and all three lines were built in 1951. Ownership of the transmission lines was transferred from the Bureau of Reclamation to the Western Area Power Administration (Western) in 1977. A more recent higher capacity transmission line, the Olinda Tracy Transmission Line, was completed adjacent to the Hurley-Tracy Transmission Line by Western in 1993. This line runs from near Redding to the Tracy Switch Station and can transmit 550 kv. It has towers in a different style from the 1951 lines.

Other water conveyance facilities in the project area are parts of local agricultural irrigation systems. The Westside Irrigation District Complex (Resource No. 8) is located near the south end of the reclaimed water line route. The complex consists of a 100 foot wide intake canal leading south from the Old River to a pump station and other structures near the intersection of Wicklund Road and Byron Bethany Road. The pump station lifts water to an aqueduct which feeds two main canals that irrigate fields south of the project area. The complex was completed in 1917. The pump station is a two

story concrete structure with six bays. Also included in the complex are an electrical substation, a warehouse, two houses in Craftsman style, and two sheds. The entire complex remains much as it was in 1917. The only apparent modification is a new roof on the pump station. The completion of the irrigation complex changed agriculture in the area from extensive winter rainfall dependent grain cultivation to more water intensive summer crops such as sugar beets, alfalfa, and nuts.

The Byron Bethany Irrigation District is located north of the Westside Irrigation District and the main canal of the Byron Bethany District runs through much of the project area. The canal was originally dirt lined when completed in 1919, but some sections are now concrete lined. During a system upgrade in 1968, the original pumps were replaced and many of the canals were lined with concrete.

The Mountain House School (Resource No. 10) is located one half mile south of the gas line route on Mountain House Road. The present school building was constructed in 1923 and replaced a school building that was built in 1889. The present school building is a stuccoed wood frame structure with a central entry and a classroom to the left and an auditorium to the right. The original building was substantially remodeled during a seismic retrofit program in 1976.
The Livermore Yacht Club (Resource No. 15) is located on an inlet of the Old River about ½ mile northeast of the reclaimed water line route in the northeast corner of Alameda County. The yacht club was begun in 1937 and additional buildings were added after 1952. It consists of a community of about 46 houses, a store, public restroom, and other ancillary facilities. The store and most of the older houses have been renovated and remodeled over the years. In addition, there are houses that date to the 1960s and later.

The other resources of historic age in the project area are all ranch or farm houses with associated structures, such as barns and sheds. Of the 13 inventoried farm/ranch complexes, only the Patteson Ranch, the Costa Ranch, the Dexter Ranch, and the Kuhn Ranch date to the period of early agricultural development prior to 1930 when extensive grain farming was being replaced by irrigation agriculture.

The Patteson Ranch (Resource No. 13) was begun circa 1920 by the Mohr family and the complex consists of a main house, two barns, sheds and storage buildings. There are also four mobile homes. The main house actually consists of two older houses that have been connected. The property was originally owned by Mary Mohr, whose family owned Mohr's Landing and much other acreage in the project area. Mrs. Mohr left the property to her friend, Mrs. Patteson, in the early 1940s. It was at this time that a second house was moved from elsewhere and connected to the original house.

The building complex on the Costa Ranch (Resource No. 16) was begun circa 1900 by H. Lindemann. There are two houses (one in Craftsman style), a barn, a hay storage structure, and two storage sheds. Mr. Furtado purchased the property in 1943 and tore down one of two houses present on the property at that time. The surviving house is probably the Craftsman style house present on the property today. The style suggests it was built in the 1920s. The ranch is presently owned by the Costas. Manuel Costa worked for Mr. Furtado and married his daughter.

The Dexter Ranch (Resource No. 18) was begun circa 1917 by the Peterson family. There are three houses, a barn, a hay storage building, and three sheds. One of the houses is a modern ranch style house. The other two houses predate 1956 and are vernacular in style. One of the two older houses reportedly consists of the pre-1923 Mountain House School building that was moved to this location and modified with additions to make the house. The Petersons sold the ranch to Mr. McFall who added the school building house in 1923. McFall sold the ranch to the Dexters in 1944. With the exception of the two older houses, most of the other buildings are less than 50 years old.

At the Kuhn Ranch (Resource No. 20) construction of the extant buildings was begun circa 1925 by John Holck. The property was originally part of a larger parcel owned by L. Ellerbrook as early as 1874. The house was built in 1925 by John Holck who bought the property from William Saxover, who had purchased it from Ellerbrook in 1917. A subsequent owner was Joseph Whalen, who sold the property to the present owner, Dolores Kuhn. Currently, there are a house, a barn, and two sheds on the property. The single story house has several extensions which appear to be later additions. All original windows have been replaced with aluminum slider windows.

Native American Contacts

The applicant contacted the Native American Heritage Commission (NAHC) to obtain a list of Native Americans to be contacted for the project area. The NAHC provided names of contacts for Alameda, Contra Costa, and San Joaquin Counties. On May 3, 2001, the applicant sent letters to these 12 individuals which described the project and asked about concerns. No responses were received. The NAHC searched its sacred lands file and found no listings for the project area.

Energy Commission staff has obtained a list of concerned Native American individuals and groups from the NAHC. Those names have been added to the general information list for this project and they have been sent notices regarding public workshops. Native Americans have also been sent letters requesting that they contact staff if they have concerns regarding any impacts to archaeological or sacred sites from the project.

Members of the Santa Rosa Rancheria, a federally recognized tribe, requested that Western ensure that an ethnographic study of the project area be completed. The purpose of the study is to provide an overview of Native American use of the project area and to identify any traditional cultural properties within a three-mile radius of the project. Staff has requested the ethnographic study and the applicant has agreed to fund the study. It will be performed by the Department of Anthropology at California State University, Fresno.

The study will include an ethnographic background report for the project area. Consultation with Nototomne Yokuts, Tachi Yokuts/Santa Rosa Rancheria and other interested groups identified through information from the NAHC will provide information for the study. It will conclude with recommendations for treatment of human remains or unanticipated discoveries and additional work, if necessary (EAEC 2002ddd, p.8).

CATEGORIZATION OF IDENTIFIED CULTURAL RESOURCES

Various laws apply to the treatment of cultural resources. These laws require the Energy Commission and Western to categorize cultural resources by determining whether they meet sets of specified criteria. These categories then in turn influence the analysis of potential impacts to the cultural resources and the methods and consultation required to mitigate any such impacts.

Under federal law, only historical or prehistoric sites, objects, or features, or architectural resources that are assessed as "significant" in accordance with federal guidelines need to be considered in analyzing potential impacts. The significance of historical and prehistoric cultural resources is based on the criteria for eligibility for nomination to the NRHP as defined in Title 36, Code of Federal Regulations, section 60.4. If such resources are determined to be significant, and therefore eligible for listing in the NRHP, as well as the CRHR, they are afforded certain treatment under the National Historic Preservation Act and/or CEQA. Western is responsible for meeting the requirements of NHPA and the Energy Commission is responsible for meeting the requirements of CEQA.

The National Register criteria state that "eligible historic properties" are districts, sites, building, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

a. are associated with events that have made a significant contribution to the broad patterns of our history; or

b. that are associated with the lives of persons significant in our past; or

c. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d. that have yielded, or may be likely to yield, information important to history or prehistory. Isolated finds by definition do not meet these criteria.

California has adopted a very similar set of criteria for assessing resources of statewide importance. Under federal law, cultural resources determined not to be significant, that is, not eligible for National Register listing, are subject to recording and documentation only, and are afforded no further treatment. However, occasionally certain resources, although they may not be assessed as "significant," may nonetheless be of local or regional importance such that mitigation may be warranted regardless of their assessed significance. Energy Commission staff and Western evaluated the survey reports and site records for any known resources located within or adjacent to the project impact area to determine whether they meet the eligibility criteria.

The record and literature search and the pedestrian surveys of the proposed project APE were conducted to identify the presence of any cultural resources. Where cultural resources were identified, additional evaluation was conducted to determine whether

the resources are already listed on, or are potentially eligible for listing on, either the NRHP (36 CFR 800) or the CRHR. The determination of eligibility is made in compliance with the applicable provisions of the National Historic Preservation Act.

CEQA Guidelines explicitly require the lead agency, in this case the Energy Commission to make a determination of whether a proposed project will affect "historical resources." The guidelines provide a definition for historical resources and set forth a listing of criteria for making this determination. These criteria are the eligibility criteria for the CRHR and are essentially the same as the eligibility criteria for the NRHP. In addition, as with the NRHP, historical resources must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. Resources eligible for the CRHR may have less integrity than the resources eligible for the NRHP. If the criteria are met and the resource is determined eligible for the CRHR, the Energy Commission must evaluate whether the project will cause a "substantial adverse change in the significance of the historical resource," which the regulation defines as a significant effect on the environment.

CEQA also contains a section addressing "unique" archeological resources and provides a definition of such resources (Public Resources Code, section 21083.2). This section establishes limitations on analysis and prohibits imposition of mitigation measures for impacts to archeological resources that are not unique. However, the CEQA Guidelines state that the limitations in this section do not apply when an archeological resource has already met the definition of an historical resource (Title 14, California Code of Regulations, Section 15064.5). Where staff has determined that the sites for which it is recommending mitigation meet the definition of historical resources, the prohibition does not apply.

The original historic survey conducted by the applicant did not identify any resources of historic age in the vicinity of the project. They concluded, based on their own criteria, that with the exception of Mountain House School (1/2 mile from the project), no other structures appeared to be 45 years old or eligible for listing in the NRHP or CRHR. Subsequent to this survey, the applicant obtained the services of a qualified historian to evaluate the PG&E Distribution Line, the Tracy Pumping Station, and the Tracy Switch Station. The applicant evaluated the PG&E Distribution Line as not eligible for the National Register of Historic Places. Although staff requested that the Tracy Pumping Station and the Tracy Switch Station be evaluated as separate properties, the applicant's consultant evaluated them as one property and concluded that, because the switch station had lost integrity during numerous recent additions (buildings and switching equipment), the entire complex (the Tracy Pumping Station and the Tracy Switch Station) is not eligible for the NRHP.

The evaluations of the PG&E Distribution Line, the Tracy Pumping Station, and the Tracy Switch Station, provided by the applicant met the requirements for evaluating historic resources provided in CEQA and NHPA. A prior evaluation of historic structures provided by the applicant was inadequate, since it based all evaluations on potential age, focused on appearance of the façade. This evaluation did not meet the requirements for evaluating historic resources provided in either CEQA or NHPA. As noted earlier, the Energy Commission employed a qualified consultant to assess historic resources within one mile of the project site and linears. Results differed

considerably from those of the applicant. This historian inventoried 28 properties identified as 45 years or older (Table 1) and evaluated 18 of them using NRHP and CRHR criteria (see the discussion of NRHP and CRHR eligibility criteria in the Categorization of Identified Cultural Resources section). The consultant recommended three historic resources in the project area as eligible to both the NRHP and the CRHR. The historical resources evaluated as eligible are a segment of the Delta Mendota Canal and Intake Channel, the Tracy Pumping Station, and the Westside Irrigation District Complex. The Delta Mendota Canal retains integrity and is eligible under Criterion A as part of the Central Valley Project because it contributed to the broad historic pattern of the development of the state-wide water control public works program and the development of agricultural operations and communities throughout California's inland valleys. It is eligible under Criterion C because it is an excellent example of a revolutionary scale of canal construction. The Tracy Pumping Station is eligible under Criterion A also because it retains integrity and was part of the CVP. The pumping station is also eligible under Criterion C because the massive size of the pump made it unique in California at the time. The Westside Irrigation District Complex retains integrity and is eligible under Criterion A because it is the oldest intact example of the development of regional irrigation districts which altered farming practices and led to increased economic and residential development.

While eligibility determinations for the NRHP must be made by the lead federal agency (in this case, the Western Area Power Administration) with the concurrence of the State Historic Preservation Officer (SHPO), Energy Commission staff concurs that the Delta Mendota Canal and Intake Channel, the Tracy Pumping Station, and the Westside Irrigation District Complex resources are eligible for the CRHR. Western will recommend to the SHPO that Delta Mendota Canal and Intake Channel and the Westside Irrigation District Complex are eligible to the NRHP. They will recommend the Tracy Substation including the Tracy Pumping Station as not eligible to the NRHP based on the fact that they were constructed at the same time and there is loss of integrity. PAR recommends that the Tracy pumping station is eligible to the CRHR under criterion C. Eligibility is based on the pumping station's relation to the Delta Mendota Canal, the CVP and its massive size. Energy Commission staff concurs with this assessment.

The PG&E Distribution Line and Substation is not eligible for the CRHR under Criterion A because it was constructed as a small line to distribute electricity off the main line and was not significant in the overall transmission system at the time, nor was it the first such line. It is not associated with any historically significant person and, therefore, is not significant under Criterion B. It is not significant under Criterion C because it is not technologically unique and is an example of a common design ubiquitous across the United States.

The other resources in the project vicinity that are potentially eligible under Criterion A, such as the Southern Pacific Railroad Grade, the Byron Bethany Road, the transmission lines associated with the Central Valley Project, the Byron Bethany Irrigation District Canal, the Mountain House School, and the four farm/ranch complexes that date to before 1930, do not retain integrity of workmanship and/or setting and feeling. These other resources also are not old enough to have been associated with important events or persons in the history of the area (Criteria A and B) and are not

architecturally distinctive (Criterion C). Therefore, staff finds that they are not eligible for the CRHR.

Potential cultural concerns raised by Native Americans at the Santa Rosa Rancheria will be addressed by an ethnography of the project area, which is required in condition of certification Cul-6.

ANALYSIS AND IMPACTS

Since project development and construction usually entail surface and subsurface disturbance, the proposed East Altamont Energy Center has the potential to adversely affect both known and unknown cultural resources. Staff has analyzed the potential direct, indirect, and cumulative impacts from the proposed project. Direct impacts are those which may result from the immediate disturbance of resources, whether from vegetation removal, vehicle travel over the surface, earth-moving activities, excavation or demolition. Indirect impacts are those which may result from increased erosion due to site clearance and preparation, or from inadvertent damage or vandalism due to improved accessibility. Cumulative impacts to cultural resources may occur if increasing amounts of land are cleared and disturbed for the development of multiple projects in the same vicinity as the proposed project.

The potential for the project to cause impacts to cultural resources is related to the likelihood that such resources are present and whether they are actually encountered during project development and construction activities. Although the existence of known cultural resources increases the potential for additional resources, the absence of known resources does not necessarily mean that unknown resources will not be encountered and that impacts will therefore not occur.

PROJECT SPECIFIC IMPACTS

Archaeological Resources

The archaeological inventories for the plant site and linear components did not record any archaeological sites within the project footprint. Therefore, there are no known impacts to archaeological resources.

Because project-related site development and construction would entail subsurface disturbance, the proposed project has the potential to impact as yet unidentified subsurface cultural resources. Although no previously recorded archaeological sites will be impacted by the project, the presence of prehistoric artifacts near Mountain House Creek and the results of the geoarchaeological study indicate that there is a potential for encountering buried prehistoric cultural material during construction of the reclaimed water line along Byron-Bethany Road where it crosses Mountain House Creek. The results of the backhoe test near the town site of Wicklund (P-39-000343) showed that construction of the reclaimed water line would not impact subsurface deposits associated with this site. However, there is a potential to encounter buried resources from the historic period during construction of the reclaimed water line in the vicinity of the town site of Bethany and historic archaeological site P-39-000345. If archaeological

sites are encountered during construction and are evaluated as eligible for the CRHR or the NRHP, impacting these sites would result in a significant impact and an adverse effect, unless mitigated.

Historical Structures and Infrastructure

Construction of the water line from Mountain House Road to Bruns Road will cross the intake channel portion of the Delta Mendota Canal and Intake Channel. Construction of the water line could impact the canal, depending upon the construction method. The applicant plans to use directional drilling to bore under the Delta Mendota canal (EAEC 2001a, pp. 7-13). Use of this construction method will not result in any significant impacts to the canal.

Construction of the power plant and associated pipeline and transmission lines will not physically affect the Tracy Pumping Station. However, construction of the EAEC could change the setting of the Tracy Pumping Station. If construction of the EAEC would materially alter the surroundings (setting) to the point that the property's historical significance would no longer be conveyed and, therefore, the property would no longer be eligible for the CRHR, impacts to the setting of the Tracy Pumping Station would be significant (CEQA Guidelines Section 15064.5[b1, b2]). However, since the Tracy Pumping Station is already in an industrial setting with the Tracy Switch Station and numerous transmission lines and towers directly adjacent, construction of the energy center would add more industrial facilities nearby. The addition of industrial facilities, would not materially alter the surroundings (setting) to the point that the property's historical significance would no longer be conveyed. Therefore, impacts on the Tracy Pumping Station from construction of the EAEC will not be significant.

The reclaimed water pipeline route runs along Wicklund Road parallel with the intake canal of the Westside Irrigation District. It appears that installation of the pipeline by trenching in Wicklund Road will not impact the canal because it will not cross it.

CUMULATIVE IMPACTS

Cumulative impacts to cultural resources in the project vicinity may occur if subsurface archaeological deposits (both prehistoric and historic) are affected by other projects in the same vicinity as the proposed project. Residential development is proceeding north from Tracy and several projects including the Tesla and Tracy Power Plants, are planned.

However, project proponents for this and future projects in the area can mitigate impacts to as yet undiscovered subsurface archaeological sites to less than significant. Impacts can be mitigated by requiring construction monitoring, evaluation of resources discovered during monitoring, and avoidance or data recovery for resources evaluated as significant (eligible for the CRHR or NRHP).

IMPACTS OF FACILITY CLOSURE

The anticipated lifetime of the East Altamont Energy Center is expected to be approximately 30 years. It is anticipated that upgrades or modifications made prior to

the facility's closure might extend the life of the plant. Closure would be caused by either (1) a natural or manmade disaster or economic difficulty, or (2) planned orderly closure that will occur when the plant becomes economically non-competitive.

PLANNED CLOSURE

At the time of planned closure, all then-applicable LORS will be identified and the Energy Commission-required closure plan will address compliance with these LORS. Generally, if no additional ground disturbance occurs during closure activities and all conditions of certification have been met, no impacts to cultural resources would be expected. However, actual potential impacts are likely to depend upon the final location of project structures in relation to existing resources, and upon the procedures used for the removal of project structures. Since the spatial relationship between the closure and removal of project structures and sensitive resources cannot be determined at this time, no conclusion can be drawn at this time with respect to the impact of facility closure on cultural resources. The closure plan, when created, will address impacts to cultural resources.

TEMPORARY CLOSURE

A temporary closure should have no impacts on cultural resources as long as no additional lands are needed for the closure. A contingency plan for temporary cessation of operation would be implemented that would ensure compliance with all applicable LORS.

UNEXPECTED PERMANENT CLOSURE

If a site were abandoned, impacts to cultural resources would be unlikely because there would be no immediate soil disturbances. Over time, depending on the need to disturb the ground to accomplish project closure and facility removal, some disturbance of known and/or previously unknown cultural resources might result.

COMPLIANCE WITH APPLICABLE LORS

Connecting the power plant to existing transmission lines makes it necessary to obtain approval from the Western Area Power Administration (Western). Obtaining this approval triggers the compliance requirements of Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, set forth in Title 36, Code of Federal Regulations, section 800 and the National Environmental Policy Act. Western will consult with the State Historic Preservation Officer to fulfill their responsibilities under the NHPA.

After all requested documents are received by Western, they will provide the necessary documentation concerning cultural resources to the SHPO. The SHPO will review and comment within 30 days. If additional information is necessary or if there is no agreement regarding the outcome, Western will provide that information or an explanation and the SHPO will have an additional 30 days to respond. Western's obligation to consult with the SHPO will have no additional impacts on the Energy Commission's permitting process.

The three counties in the project area have policies and goals for the protection of cultural resources, but have no specific procedures for implementation of CEQA that differ from procedures used by the Energy Commission. Implementation of the mitigation measures recommended in the conditions of certification will ensure compliance with LORS.

MITIGATION

For cultural resources, the preferred method of mitigation is to avoid areas where cultural resources are known to exist, wherever possible. Often, however, avoidance cannot be achieved, and other measures such as surface collection, subsurface testing, and data recovery must be implemented for archaeological resources and documentation must be implemented for historical structures. Mitigation measures are developed to reduce the potential for adverse project impacts on cultural resources to a less than significant level.

APPLICANT'S PROPOSED MITIGATION

Archaeological Resources

The applicant recommends full time construction monitoring by a qualified archaeologist on a full time or part time basis at the discretion of the archaeologist. If archaeological material is observed by the monitoring archaeologist, ground disturbing activity would be halted in the vicinity of the find so that its significance (CRHR eligibility) can be evaluated. If evaluated as significant, mitigation measures (avoidance or data recovery) would be developed in consultation with the Energy Commission.

The applicant recommends a worker education program to ensure that buried archaeological resources are recognized by construction crews. Such a program would include information about the kinds of archaeological material that could be encountered and the procedures to be followed if such material is discovered.

Historic Architectural Resources

No mitigation measures for historic architectural resources were recommended by the applicant.

Cultural Concerns

The applicant did not suggest mitigation for Native American cultural concerns.

STAFF'S PROPOSED MITIGATION MEASURES

Commission staff concurs with the mitigation measures proposed by the Applicant for archaeological resources, but recommends defining the area where full time monitoring will take place. Full time monitoring would take place during construction of the reclaimed water line for 1,000 feet on each side of its intersection with Mountain House Creek. In addition, full time monitoring should take place during construction of the reclaimed water line along a portion of Byron-Bethany Road and along Bethany Road. Monitoring should begin 1,000 feet northwest of the intersection of Byron-Bethany Road

and Mountain House Creek and end at the intersection of Bethany Road and Wicklund Road.

Proposed conditions of certification ensure that impacts to known resources and potential impacts to unidentified cultural resources would be mitigated below a significant level. In summary, the conditions ensure compliance with the following requirements. Condition one, **CUL-1** requires that a qualified cultural resources specialist manage cultural resources activities for the project. It also ensures that additional qualified specialists or cultural resources monitors would be retained as needed for the project. To ensure that cultural resources are adequately protected, CUL-1 requires that the CRS have three years of experience in California. In addition to other relevant types of experience, the condition requires that the CRS have some background in data recovery, including sampling for dating and botanical studies and small artifact recovery. A background in botanical studies is important because techniques for analyzing plant remains yield information regarding the human use of plants. It is also important in identification and understanding the traditional uses of plants by Native Americans. Experience in sampling for dating is important because archaeologists need to be able to fit discovered materials into chronological frameworks. All excavations need to be adapted to the research question at hand and to the nature of the site. A broad base of particular kinds of experience is necessary for a cultural resources specialist leading an excavation.

CUL-2 provides the CRS with the necessary maps and construction schedule information necessary to schedule monitors and cultural resources activity at the project site. The verification for the condition allow staff to verify that the maps and construction schedule information have been provided to the CRS and meet the needs of that project.

Moreover, a plan for treatment of previously identified cultural resources and a method for addressing the potential for encountering undiscovered resources will be provided by the Cultural Resourses Specialist (CRS) pursuant to conditions of certification **CUL-3**. The Cultural Resources Monitoring and Mitigation Plan (CRMMP) addresses, but is not limited to areas that will be monitored. In the event cultural resources are discovered, they will be recorded on Department of Parks and Recreation form, DPR 523. According to direction provided by the Office of Historic Preservation (OHP) in "Instructions for Recording Historical Resources" in general a broad threshold is set for the kinds of resources that may be recorded. "Any physical evidence of human activities over 45 years old may be recorded for purposes of inclusion in the OHP's filing system. Documentation of resources less that 45 years old also may be filed if those resources have been formally evaluated, regardless of the outcome of the evaluation" (OHP 1995, p.2). The CRMMP also provides the reporting requirements between construction personnel, the CRS's and cultural resources staff.

Although not required or discussed in this condition, staff has developed (in draft form) a programmatic treatment plan. The purpose of this agreement is to identify in advance, cultural resources that may be treated in a programmatic manner under the agreement. Staff invites the CRS to identify cultural resources that may be discovered that would not meet the criteria of the CRHR. If staff and the CRS reach agreement, then the CRS

need not notify the Energy Commission when a particular cultural resource or category of cultural resources that are identified for programmatic treatment is discovered.

CUL-4 provides for worker environmental training. The training serves to instruct workers that halting construction is necessary if a potential cultural resource is discovered. It also provides them with instruction regarding applicable laws, penalties and reporting requirements in the event something is discovered. Workers are also instructed that the CRS and other cultural resources personnel have the authority to halt construction in the event of a discovery.

CUL-5 requires notification of staff within 24 hours of a cultural resources find. Timely notification enables staff participation in determinations of significance and the selection of appropriate mitigation to lessen impacts on cultural resources to a level that is less than significant.

CUL-6 ensures that cultural resources monitoring activities are conducted in a manner that would identify cultural resources and provide useful technical information recorded in monitoring logs. Archaeological monitoring is recommended on this project because geotechnical investigation has identified the potential for subsurface sites in the vicinity of project linears. **CUL-6** specifies that cultural resources monitoring be conducted during periods of initial ground disturbance. Initial ground disturbance as it is used in this condition, means the first time grading or excavation are undertaken at the project site and at each linear. The CRS will examine subsurface soils and determine whether continued monitoring is warranted at the project site or on each linear. The CRS will then proceed in compliance with the remainder of the condition.

It is not possible to determine whether previously undiscovered cultural resources may be potentially significant. It is necessary to discover the cultural resource and assess it in relation to a research design (required in **CUL-3**) and the criteria that would make eligible to the CRHR or NRHP. Therefore, it is not possible to allocate monitoring to situations where there is a potential to discover significant cultural resources. In addition, **CUL-6** ensures that unanticipated impacts to cultural resources are identified and that any incidence of non-compliance with the conditions of certification are recognized, reported and compliance attained in a timely manner.

Furthermore, **CUL-6** requires that a weekly report written by the CRS based on information provided in the monitoring logs be provided to the CPM in the Monthly Compliance Report (MCR). If a non-compliance issue is identified, **CUL-6** requires that a report written no sooner than two weeks following resolution of a non-compliance issue be submitted in the next MCR. This is to allow the CRS time to resolve the issue and prepare a report.

CUL-7 ensures that a scope of work and research design are developed and approved by the CEC and Western prior to beginning data recovery or other mitigation. Issues regarding the determination of significance (based in part on the research design prepared for **CUL-3**) would be informally discussed on the telephone at the time a determination of significance is discussed. After the determination of significance is made (for Western this will involve consultation with the SHPO), a document is prepared to explain how data recovery or other mitigation would proceed. The

document provides information to staff to ensure that the mitigation would reduce the impact of the project on the cultural resource to less than significant levels. Western would submit the document to the SHPO for concurrence in order for data recovery to begin.

CUL-8 requires that a report be prepared following any cultural resources discovery. The report will inform Western and staff regarding the cultural resource and would supply Western with a document to submit to the SHPO to complete consultation requirements under section 106. It also requires a final cultural resources report (CRR) prepared to Archaeological Resource Management Report (ARMR) Guidelines. The report would be designed to address all cultural resources activity conducted for the project, whether or not anything new was discovered.

CUL-9 requires the curation of cultural materials collected as a result of project activity. "Guidelines for the Curation of Archaeological Collections" 1993, available on the Office of Historic Preservation Website, recommends that prior to a historic or prehistoric resource survey, study or excavation, the collection strategy should be stated in the research design (**CUL-3**) and approved by the lead agency.

Staff recommends installation of the water line under the Delta Mendota Canal by boring. Use of this construction method will not cause a significant impact to the Delta Mendota Canal.

The proposed mitigation measures would apply to any potential for impacts to sensitive cultural resources in all areas affected by the project. Mitigation measures are derived from good professional practice and they are based on the U.S. Secretary of the Interior's Guidelines. The mitigation measures set forth in the conditions have been applied to previous projects before the Commission and they have proven successful in protecting sensitive cultural resources from construction-related impacts while allowing the timely completion of many projects throughout California.

WESTERN'S PROPOSED MITIGATION MEASURES

Based on the geoarchaeological study conducted by the Applicant, Western recommends monitoring during ground disturbance in the vicinity of the reclaimed water line. The monitoring will occur 1,000 feet on each side of the reclaimed water line's intersection with Mountain House Creek (McClintock:2002). If archaeological material is observed by the monitoring archaeologist, ground disturbing activity would be halted in the vicinity of the find so that its significance (NRHP eligibility) can be evaluated. If evaluated as significant, mitigation measures (avoidance or data recovery) would be developed in consultation with Western.

The Delta Mendota Canal and the Westside Irrigation District have been recommended as eligible for inclusion in the NRHP. There will not be any impacts to the Westside Irrigation District and boring under the Delta Mendota Canal will successfully mitigate any impacts.

Cultural concerns raised by Native Americans at the Santa Rosa Rancheria, a federally recognized tribe, will be addressed by an ethnography of the project area, prepared by anthropologists from California State University, Fresno.

CONCLUSIONS AND RECOMMENDATION

The results of the records search indicate that buried archaeological resources from the prehistoric and historic periods could be encountered during construction of the reclaimed water line. If the following conditions of certification are properly implemented, the project will comply with applicable laws, ordinances, regulations, and standards for archaeological resources and will reduce impacts below a significant level. **Cul-1**, **Cul-5**, **Cul-7**, **Cul-8** and **Cul-9** are written to address the mitigation recommendations of both the Energy Commission and Western under state and federal law. **Cul-2**, **Cul-3**, **Cul-4** and **Cul-6** are written to address the mitigation recommendations of the Energy Commission under state law.

Staff recommends that the Commission adopt the following proposed conditions of certification, which incorporate the mitigation measures discussed above.

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Staff recommends that the Commission adopt the following proposed conditions of certification, which incorporate the mitigation measures discussed above.

PROPOSED CONDITIONS OF CERTIFICATION

CUL-1 Prior to the start of ground disturbance, the project owner shall provide the California Energy Commission Compliance Project Manager (CPM) and Western Area Power Administration (Western) with the name and resume of its Cultural Resources Specialist (CRS), and one alternate CRS, if an alternate is proposed, who will be responsible for implementation of all cultural resources conditions of certification.

1. The resume for the CRS and alternate, if an alternate is proposed, shall include information that demonstrates that the CRS meets the minimum qualifications specified in the U.S. Secretary of Interior Guidelines, as published in the Code of Federal Regulations, Title 36, section 61 (2000).

    a. The technical specialty of the CRS shall be appropriate to the needs of this project and shall include a background in anthropology, archaeology, history, architectural history or a related field

    b. The background of the CRS shall include at least three years of archaeological or historic, as appropriate, resource mitigation and field experience in California;

    c. and at least one year's experience in each of the following areas:

        i. principal investigator for archeological field surveys;

        ii. principal investigator for site mapping and recording;

        iii. principal investigator for site testing and data recovery, including sampling for dating and botanical studies and small artifact recovery;

        iv. principal investigator for laboratory studies of collected materials; and

        v. preparing reports for a curation repository, the State Historic Preservation Officer, and the appropriate regional archaeological information center(s).

2. familiar with the CRS's work on referenced projects.

3. The resume shall also demonstrate to the satisfaction of the CPM, the appropriate education and experience to accomplish the cultural resource tasks that must be addressed during project ground disturbance, construction and operation.

4. The CRS may obtain qualified cultural resource monitors (CRMs), as necessary, to monitor on the project. CRMs shall meet the following qualifications.

    a. A BS or BA degree in anthropology, archaeology, historic archaeology or a related field and one year experience monitoring in California; or

    b. An AS or AA in anthropology, archaeology, historic archaeology or a related field and four years experience monitoring in California; or

    c. Enrollment in upper division classes pursuing a degree in the fields of anthropology, archaeology, historic archaeology or a related field and two years of monitoring experience in California.

5. The project owner shall ensure that the CRS completes any monitoring, mitigation and curation activities necessary to this project and fulfills all the requirements of these conditions of certification. The project owner shall also ensure that the CRS obtains additional technical specialists, or additional monitors, if needed, for this project. The project owner shall also ensure that the CRS evaluates any cultural resources that are newly discovered or that may be affected in an unanticipated manner for eligibility to the California Register of Historic Resources (CRHR).

Verification : At least 90 days prior to the start of ground disturbance, the project owner shall submit the name and resume of its CRS and alternate CRS, if an alternate is proposed, to the CPM for review and approval. At least 10 days prior to the termination or release of the CRS, the project owner shall submit the resume of the proposed new CRS to the CPM for review and approval.

At least 20 days prior to ground disturbance, the CRS shall provide a letter naming anticipated monitors for the project and stating that the identified monitors meet the minimum qualifications for cultural resource monitoring required by this condition. If additional monitors are obtained during the project, the CRS shall provide additional letters to the CPM, identifying the monitor and attesting to the monitor's qualifications. The letter shall be provided one week prior to the monitor beginning on-site duties.

At least 10 days, prior to the start of ground disturbance, the project owner shall confirm in writing to the CPM that the approved CRS will be available for onsite work and is prepared to implement the cultural resources conditions of certification.

CUL-2 (1) Prior to the start of ground disturbance, the project owner shall provide the CRS and the CPM with maps and drawings showing the footprint of the power plant and all linear facilities. Maps shall include the appropriate USGS quadrangles and a map at an appropriate scale (e.g., 1:2000 or 1" = 200') for plotting individual artifacts. If the CRS request enlargements or strip maps for linear facility routes, the project owner shall provide them with copies to the CPM. If the footprint of the power plant or linear facilities changes, the project owner shall provide maps and drawings reflecting these changes, to the CRS and the CPM. Maps shall identify all areas of the project where ground disturbance is anticipated.

(2) If construction of this project will proceed in phases, maps and drawings may be submitted in phases. A letter identifying the proposed schedule of each project phase shall be provided to the CPM.

(3**)** If not previously submitted, prior to implementation of additional phases of the project, current maps and drawings shall be submitted to the CPM.

(4) At a minimum, the CRS shall consult weekly with the project superintendent or construction field manager to confirm area(s) to be worked during the next week, until ground disturbance is completed. A current schedule of anticipated project activity shall be provided to the CRS on a weekly basis during ground disturbance and provided to the CPM in each Monthly Compliance Report (MCR).

Verification: At least 75 days prior to the start of ground disturbance, the project owner shall provide the designated CRS and the CPM with the maps and drawings. If this is to be a phased project, a letter identifying the proposed schedule of construction phases of the project shall also be submitted. If not previously submitted, at least 30 days prior to the start of ground disturbance on each phase of the project, following initial ground disturbance, copies of maps and drawings reflecting additional phases of the project, shall be provided to the CPM for review and approval. (4) If there are changes to the scheduling of the construction phases of the project, a letter shall be submitted to the CPM within 5 days of identifying the changes.

CUL-3 Prior to the start of ground disturbance; the designated CRS shall prepare, and the project owner shall submit to the CPM for review and approval, a Cultural Resources Monitoring and Mitigation Plan (CRMMP), identifying general and specific measures to minimize potential impacts to sensitive cultural resources.

The CRMMP shall include, but not be limited to, the following elements and measures.

a. A proposed general research design that includes a discussion of questions that may be answered by the mapping, data and artifact recovery conducted during monitoring and mitigation activities, and by the post-construction analysis of recovered data and materials.

b. Specification of the implementation sequence and the estimated time frames needed to accomplish all project-related tasks during ground disturbance, construction, and post-construction analysis phases of the project.

c. Identification of the person(s) expected to perform each of the tasks; a description of each team member's responsibilities; and the reporting relationships between project construction management and the mitigation and monitoring team.

d. A discussion of the inclusion of Native American observers or monitors, the procedures to be used to select them, and their role and responsibilities.

e. A discussion of all avoidance measures such as flagging or fencing, to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided during construction and/or operation, and identification of areas where these measures are to be implemented. The discussion shall address how these measures will be implemented prior to the start of construction and how long they will be needed to protect the resources from project-related effects.

f. A discussion of the location(s) where monitoring of ground disturbing activities is deemed necessary. Monitoring shall be conducted full time, during ground disturbance on the reclaimed water line from 1000 feet prior to its intersection with Henderson and Bethany Roads to its end. Spoils

generated by ground disturbance shall be examined every other day to determine whether there is evidence of cultural resources.

g. A discussion of the requirement that all cultural resources encountered will be recorded on a DPR form 523 and mapped (may include photos). In addition all archaeological materials collected as a result of the archaeological investigations shall be curated in accordance with The State Historical Resources Commission's "Guidelines for the Curation of Archaeological Collections," into a retrievable storage collection in a public repository or museum. The public repository or museum must meet the standards and requirements for the curation of cultural resources set forth at Title 36 of the Code of Federal Regulations, section 79.

   Discussion of any requirements, specifications, or funding needed for curation of the materials to be delivered for curation and how requirements, specifications and funding will be met. Also the name and phone number of the contact person at the institution shall be included. In addition, include information indicating that the project owner will pay all curation fees and that any agreements concerning curation will be retained and available for audit for the life of the project.

h. A discussion of the availability and the designated specialist's access to equipment and supplies necessary for site mapping, photographing, and recovering any cultural resource materials encountered during construction.

i. A discussion of the proposed Cultural Resource Report (CRR) which shall be prepared according to Archaeological Resource Management Report (ARMR) Guidelines. The CRR shall include **all** cultural resource information obtained as a result of this project.

Verification: At least 60 days prior to the start of ground disturbance, the project owner shall provide the CRMMP, prepared by the CRS, to the CPM for review and written approval.

CUL-4 Worker Environmental Awareness Training for all new employees shall be conducted prior to and during periods of ground disturbance. New employees shall receive training prior to starting work at the project site or linears. The training may be presented in the form of a video. The training shall include a discussion of applicable laws and penalties under the law. Training shall also include samples or visuals of artifacts that might be found in the project vicinity and the information that the CRS, alternate CRS or monitor has the authority to halt construction in the event of a discovery or unanticipated impact to a cultural resource. The training shall also instruct employees to halt or redirect work in the vicinity of a find and to contact their supervisor and the CRS or monitor. An informational brochure shall be provided that identifies reporting procedures in the event of a discovery. Workers shall sign an acknowledgement form that they have received training and a sticker shall be placed on hard hats indicating that environmental training has been completed.

Verification The project owner shall provide in the Monthly Compliance Report the WEAP Certification of Completion form of persons who have completed the training in the prior month and a running total of all persons who have completed training to date.

CUL-5 The CRS, alternate CRS and the CRM(s) shall have the authority to halt or redirect construction if previously unknown cultural resource sites or materials are encountered or if known resources may be impacted in a previously unanticipated manner.

If such resources are found, the halting or redirection of construction shall remain in effect until all of the following have occurred:

a. the CRS has notified the CPM and the project owner of the find and the work stoppage;

b. the CRS, the project owner, the CPM and Western have conferred and determined what, if any, data recovery or other mitigation is needed; and

c. any necessary data recovery and mitigation has been completed.

If data recovery or other mitigation measures are required, the CRS and/or the alternate CRS and CRM(s), including Native American monitor(s), shall monitor these data recovery and mitigation measures, as needed.

For any cultural resource encountered, the project owner shall notify the CPM within 24 hours after the find.

All required data recovery and mitigation shall be completed expeditiously unless all parties agree to additional time.

Verification At least 30 days prior to the start of ground disturbance, the project owner shall provide the CPM with a letter confirming that the CRS, alternate CRS and cultural resources monitor(s) have the authority to halt construction activities in the vicinity of a cultural resource find and stating that the CRS will notify the CPM and project owner within 24 hours after a find.

CUL-6 Cultural resource monitoring shall be conducted full time during ground disturbance necessary for construction of the reclaimed water line along a portion of Byron-Bethany Road and along Bethany Road. Monitoring should begin 1,000 feet northwest of the intersection of Byron-Bethany Road and Mountain House Creek and end at the intersection of Bethany Road and Wicklund Road.

1. Cultural resources monitoring shall be conducted during initial ground disturbance at the plant site and all linear components. The potential for encountering cultural resources shall be assessed by the CRS based on the initial ground disturbance observations. If the initial assessment indicates a potential for encountering cultural resources, then full time monitoring shall continue until the CRS concludes and justifies to the CPM that full time monitoring is no longer necessary. If the CRS determines that encountering

cultural resources are unlikely, all spoils from ground disturbance shall be examined every other day as ground disturbing project activities continue. If the CRS determines that full-time monitoring or spoil examination is not necessary in certain locations, a letter or e-mail providing a detailed justification for the decision to reduce the level of monitoring shall be provided to the CPM for review and approval prior to any reduction in monitoring.

2. Monitors shall keep a daily log of any monitoring or cultural resource activities and the CRS shall prepare a weekly summary report on the progress or status of cultural resources-related activities providing an update that may include information that no monitoring activities have occurred. The CRS may informally discuss cultural resource monitoring and mitigation activities with Energy Commission technical staff.

3. The CRS shall notify the project owner and the CPM, by telephone, of any incidents of non-compliance with any cultural resources conditions of certification within 24 hours of becoming aware of the situation. The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the conditions of certification. A report detailing resolution of the issue shall be provided to the CPM in the MCR no earlier than two weeks following the incident.

4. A Native American monitor shall be obtained to monitor ground disturbance in the area of the reclaimed water line where cultural resources monitoring shall occur full time, per this condition. Native American monitoring shall also occur during any cultural resource monitoring for the project, including investigation of initial ground disturbance and spoils and data recovery, if data recovery is necessary. Informational lists of concerned Native Americans and Guidelines for monitoring shall be obtained from the Native American Heritage Commission. Preference in selecting a monitor shall be given to Native Americans with traditional ties to the area that will be monitored.

5. At least 30 days prior to ground disturbance, the project owner shall ensure that an ethnography is initiated on behalf of Native Americans at the Santa Rosa Rancheria. The ethnography, shall include, but not necessarily be limited to the proposed scope of the study, provided as a response to Data Request Responses Set No. 6, Cultural Resources No.155. The scope of the study will focus on lands within a 3-mile radius surrounding the project area. Consideration of a larger area shall be included to allow discussion of historic interaction between Bay Miwok and Northen Valley Yokuts people. Primary tasks will include preparation of an ethnographic report for the project area. Consultation with Nototomne Yokuts, Tachi Yokuts/Santa Rosa Rancheria and other interested groups as identified through the consultation with the Native American Heritage Commission. The report shall also provide recommendations, if applicable. A copy of the scope of work and a summary of achieved objectives shall be provided to the CPM

and Western for review and approval. A copy of the completed ethnography shall be provided to Western and the CPM for review and approval.

Verification: During the ground disturbance phases of the project, if the CRS wishes to reduce the level of monitoring occurring at the project, a letter identifying the area(s) where the CRS recommends the reduction and justifying the reductions in monitoring shall be submitted to the CPM for review and approval.

During the ground disturbance phases of the project, the project owner shall include in the MCR to the CPM copies of the weekly summary reports prepared by the CRS regarding project-related cultural resources monitoring activities. Copies of daily logs shall be retained and made available for audit by the CPM as needed.

Within 24 hours of recognition of a non-compliance issue, the CRS shall notify the CPM by telephone of the problem. Daily logs shall include forms detailing any instances of non-compliance with conditions of certification. In the event of a non-compliance issue, a report written no sooner than two weeks after resolution of the issue shall be provided in the next MCR.

One week prior to ground disturbance in areas where there is a potential to discover Native American artifacts, the project owner shall send notification to the CPM identifying the person(s) retained to conduct Native American monitoring. If efforts to obtain the services of a qualified Native American monitor are unsuccessful, the project owner shall immediately inform the CPM who will initiate a resolution process.

No later than 30 days after the start of ground disturbance, a copy of the scope of work of the ethnography and a summary of achieved objectives shall be submitted to the CPM and Western for review and approval. No later than 90 days after the initial ground disturbance, a copy of the completed ethnography shall be provided to Western and the CPM for review and approval.

CUL-7 Following the discovery of significant cultural resources, the project owner shall ensure that the CRS prepares a research design and a scope of work for any necessary data recovery or additional mitigation. The project owner shall submit the proposed research design and scope of work to Western's archeologist and the CPM for review and approval.

The proposed research design and scope of work shall include (but not be limited to):

a. a discussion of the methods to be used to recover additional information and any needed analysis to be conducted on recovered materials;

b. a discussion of the research questions that the materials may address or answer by the data recovered from the project;

c. discussion of possible results and findings; and

d. an estimate of the time, personnel, and costs needed to complete the recovery and analysis of materials and to prepare report.

Verifications: The project owner shall ensure that the CRS prepares and submits the research design and scope of work within 14 days following the determination that significant materials have been discovered. After completion of the research design and scope of work, the project owner shall submit it to Western and the CPM for review and approval. Western shall submit the research design and scope of work to the State Historic Preservation Officer as part of consultation under Section 106.

CUL-8 The project owner shall ensure that the CRS prepares a report on any discovery of cultural resources. The project owner shall submit the report to Western and the CPM for review and approval.

The Cultural Resources Report (CRR)shall include (but not be limited to) the following:

1. A brief description of pre-project literature search and surveys;

2. a description of the discovery;

3. a description of the process used to arrive at a determination of significance;

4. a discussion of the research questions that the recovered data could address or answer;

5. a description of the methods employed in the field and laboratory to complete data recovery efforts;

6. a description (including drawings and/or photos) of recovered cultural materials;

7. an inventory list of recovered cultural resource materials;

8. results and findings of any special analyses conducted on recovered cultural resource materials, including an interpretation of the site in regards to any research design prepared prior to the data recovery;

9. conclusions and recommendations;

10. maps (7.5 minute USGS topographic map) showing the area involved in the data recovery;

11. completed state site forms, including photos, maps, and drawings; and

12. the name and location of the public repository receiving the recovered cultural resources for curation.

Although, no cultural resources are identified as a result of the project, a CRR shall be prepared that address the entire project. The proposed CRR shall be

prepared according to Archaeological Resource Management Report (ARMR) Guidelines. The CRR shall include **all** cultural resource information obtained as a result of this project. All survey reports, monitoring records and additional research reports not previously submitted to the California Historic Resource Information System (CHRIS) shall be included as an appendix to the CRR. This report shall be submitted to the CPM after the conclusion of all ground disturbance (including landscaping). This report shall be considered final upon approval by the CPM and Western.

Verification: The project owner shall ensure that the CRS completes the CRR within 90 days following completion of the analysis of the recovered cultural materials. Within 7 days after completion of the report, the project owner shall submit the Cultural Resources Report to Western and the CPM for review and approval. Western will submit the report, when approved, to the State Historic Preservation Officer in order to complete consultation under Section 106.

Whether or not cultural resources are identified as a result of the project, the CRR shall be submitted to the CPM and Western within 90 days after the conclusion of ground disturbance, including landscaping, for review and approval.

CUL-9 The CRS shall provide a copy of a curation agreement from a public repository that meets the requirements set out in Title 36, CFR section 79 for the curation of cultural resources in the event that cultural materials are discovered during construction activities (Condition Cul-7). In addition, the specialist shall ensure that all cultural resource materials, maps, and data collected during data recovery and mitigation for the project are delivered to the repository following the approval of the report on data recovery. The project owner shall pay any fees for curation required by the repository.

Verification: The project owner shall provide Western and the CPM with a copy of the curation agreement at least ten (10) days prior to the initiation of construction activities. If there are procedural restrictions on the issuance of such an agreement (e.g., if the repository will not issue an agreement until they know for sure that there will be material curated in their facility), the specialist shall provide a copy of an agreement no more than thirty (30) days following the discovery of cultural materials. The specialist shall provide Western and the CPM with a copy of an inventory of all materials curated at the facility and documentation that they have been accepted for curation.

For the life of the project the project, owner shall maintain in its of compliance files, copies of signed agreements with the public repository to which the project owner has delivered cultural resource materials for curation.

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